



**National Advisory Council for
Environmental Policy and Technology**

**Teleconference Meeting Summary
January 9, 2008**

Participants

NACEPT Members

Joel Bolstein
Jeff Crane
Carolyn Green
Bob Gruenig
John Howard
Clayton Matt
Bill Mullican
Jennifer Nash
Howard Neukrug
Arleen O'Donnell
Bob Olson
Harrison Rue
Brad Smith
Vicki Tschinkel
Dan Watts

EPA Representatives

Sonia Altieri
Tom Armitage
Elaine Koerner
Ethan McMahon
Pat Murphy

Members of the Public

Robert Gent, International Dark Sky Association
Robert Wagner, Missouri Night Sky Protection Act

Purpose: To discuss and approve the Draft NACEPT Comments on the EPA 2007 Report on the Environment: Highlights of National Trends (ROE HD).

Welcome and Opening Remarks

The call began at 2:00 p.m. Eastern Time, Wednesday, January 9, 2008. *John Howard* welcomed the Council members and the public and explained the purpose of the call. He thanked the ROE workgroup members and recognized Arleen O'Donnell and Dan Watts, workgroup co-chairs; George Lambert and Robert Twiss, Science Advisory Board (SAB) members; and Ethan McMahon, EPA ROE HD program manager.

Mr. Howard noted that the draft comments had been approved by the ROE workgroup, and asked that if NACEPT members had any changes that they propose specific language on the call. He then invited Ms. O'Donnell and Dr. Watts to give an overview of NACEPT's comments on the ROE HD.

Overview of Draft NACEPT Comments on the EPA 2007 Report on the Environment/Highlights of National Trends

Ms. O'Donnell explained that EPA asked NACEPT to peer review its 2007 Report on the Environment Highlights Document. Specifically, NACEPT was asked to answer the following three questions:

- Does the ROE HD accurately reflect the scientific content of the Technical Document?
- What conclusions would one come to regarding human health and the state of the nation's environment?
- Is the information presented in an appropriate and understandable way to the target audience? How could the presentation be improved?

In response to EPA's charge, the workgroup developed the following overarching recommendations:

- EPA needs to draw conclusions based on the environmental data available.
- EPA needs to engage the public by providing information on how all citizens can be better stewards, such as developing links to appropriate sections of its website to further inform the reader about what they can do to take action.
- EPA needs to make the data relevant to the reader by highlighting trends from around the county and addressing high visibility, public health issues, such as autism, obesity, and asthma.
- The electronic version should be more-interactive and publicly accessible.
- Sustainability was recommended as an overarching theme or message to pull the chapters together.

Dr. Watts said Section III includes specific comments on each chapter of the ROE. The workgroup believes developing the ROE is an important activity for EPA. He also noted that the workgroup relied on the SAB members to judge whether the HD accurately reflected the scientific content in the Technical Document.

Public Comments on the Draft NACEPT Advice Letter

Robert Gent is the President of the Board of Directors of the International Dark Sky Association. The Association is an environmental non-profit based out of Tucson that raises awareness about the problem of night pollution. He recommends adding language about night pollution to NACEPT's advice letter.

Mr. Gent discussed many negative impacts from night pollution:

- Leaving lights on wastes energy
- Poorly designed lighting creates glare which can be a safety issue
- Nocturnal creatures, migrating birds, and sea turtles are impacted by bright lights
- Medical researchers have noted that lights suppress melatonin which can result in sleep problems and increased cancer risk
- Losing the night sky

The National Park Service issued a paper in 1999 called the *Vanishing Night Sky* that discusses the impact on national parks. Mr. Gent said the problem is easy to address. More than 20 states have enacted outdoor lighting ordinances and EPA can help with educational outreach.

Robert Wagner represents the Missouri Night Sky Protection Act. Mr. Wagner talked about the problem of light pollution in Federal Class 1 Areas. The EPA in its October 1979, *Protecting Visibility: An EPA Report to Congress* first mentioned the problem of increased night sky brightness. Subsequent documents such as the *1982 Air Quality Criteria for Particulate Matter and Sulfur Oxides Volume III* and the *1995 Air Quality Criteria for Particulate Matter II of III* review draft also included this language.

Unfortunately, it appears that the increased night sky brightness was attributed more to particulate matter than artificial lighting. As national particulate matter levels have declined, the night sky brightness has continued to increase. Based on 1997 numbers, we have found that over half of the 149 Class 1 Federal Areas analyzed have moderate to severe light pollution problems. One-quarter of these areas have a night sky brightness so severe you can no longer see the Milky Way. Current forecasts by the National Park Service show there will be no place left in the lower 48 states with an unpolluted night sky by 2025.

Currently, the light pollution credit in the LEED Rating System is optional and the Energy Star Program Residential Outdoor Lighting Fixture standards do nothing to discourage shining lights into the sky. Increases in lighting efficiency have historically led to more light shining into the sky and increased night sky brightness. Although

bound by the Clean Air Act's "no man-made impairment" by 2064, current programs and regulations within the EPA have not led to an improvement in the night sky brightness. *Mr. Wagner* concluded by stating that light pollution is an ongoing issue for Federal Class 1 Areas and called for monitoring and regulation by EPA.

Mr. Howard thanked *Mr. Gent* and *Mr. Wagner* and said NACEPT will attach their written comments to the advice letter. *Ms. O'Donnell* suggested adding light pollution to the high visibility issues listed under the third overarching recommendation. The Council agreed. *Dr. Watts* asked if there was any mention of light pollution in the ROE Technical Document, and added that it might be something to consider in future versions.

Discussion and Approval of Draft NACEPT Comments on the EPA 2007 Report on the Environment/Highlights of National Trends

Dr. Watts noted that the workgroup had incorporated the Council's comments from the November NACEPT meeting. *Mr. Rue* recognized the workgroup and commended EPA for incorporating many of NACEPT's comments on the 2003 ROE, one of which was to develop a summary document. *Mr. Crane* pointed out in Section II, the line should read, "data are unavailable or inadequate".

Under the recommendation on using sustainability as a theme, *Mr. Rue* suggested inserting a sustainability sidebar or box to capture the reader's attention in every section. *Mr. Crane* added that the sustainability theme is relevant to all the chapters, not just land.

There were no comments on Section III or the Air chapter.

Mr. Rue referred to the data issue in the second paragraph under Water. He said the TMDL data is there, but it's not reaching EPA. Organizations such as Streamwatch track data. He recommended adding "One suggestion would be to consider available data from TMDL initiatives and volunteer monitoring organizations". *Ms. Green* suggested, "Where available, EPA should consider data from TMDL initiatives and volunteer monitoring organizations, and at a minimum, EPA should acknowledge that such data exists".

There were no comments on the Land, Public Health, and Ecological Condition chapters. *Ms. O'Donnell* said minor changes were made to Section V to make the editorial comments consistent and straightforward.

The Council approved the advice letter with the changes discussed on the call. *Mr. Howard* said they will attach the public comments, submit the letter to the Administrator and post it to the website.

Ms. O'Donnell thanked the workgroup and the SAB members for their time and effort. *Ms. Altieri* thanked *Arleen* and *Dan* for their leadership, and *Ethan* and *Tom* for their support and guidance to the workgroup. *Mr. McMahon* thanked the Council for their input. The teleconference adjourned at 3:00 p.m. ET.